

## ABSTRACT

A battery charger circuit is arranged to charge batteries in a constant current mode. A charging current flows from a power device through a sense resistor to a battery. The voltage across the sense resistor is used to measure the charging current.

- 5 The temperature of the sense resistor changes either because of a change in ambient temperatures or as the result of the charging current creating thermal energy in the sense resistor. The measured charging current from the sense resistor changes because of the temperature coefficient of the sense resistor, creating inaccuracies. A temperature compensation block uses a set of controllable current mirror banks to adjust reference
- 10 signals such that the effects of the temperature coefficient in the sense resistor are minimized and an accurate charging current measurement is achieved.

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